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AN ACTUAL ACCOUNT OF WHAT WE HAVE DONE TO REDUCE OUR LABOR TURNOVER

BY JOHN M. WILLIAMS,

Secretary, Fayette R. Plumb, Inc., of Philadelphia and St. Louis; President of the Philadelphia Association for the Discussion of Employment Problems.

THE USE OF AN EMPLOYMENT DEPARTMENT

I wish to speak from the standpoint of the average employer of the need of an employment department; and, to make myself entirely clear, I wish to point out conditions as they existed in our factory, and it is safe to presume in the average factory.

First, I want to state that our firm is over sixty years old, and has built up a reputation for making high quality tools during all of that period. This is not intended as an advertising statement, but is to give you some idea of the class of work we do, the problems we must solve, and further, to have you feel that our employes producing such work, must be at least of average intelligence. You will thus understand that the problems we met were not due to the fact that we had a lot of underpaid, ignorant employes. In other words, our problems are about the same as the problems you have in your own factory.

I also want to impress upon you the fact that while we are sixty years old, we are also sixty years young. I am the oldest man in the executive department of our organization and I am not much over forty years old. We have the reputation of being progressive along all lines of executive control and have established a record for efficiency along general factory lines. We have technical graduates who have been employed in our various departments to keep us fully abreast of the times in all branches of research work, especially in the development of steel. We have a cost system in our factory that was installed at the expense of thousands of dollars, and is to my mind the most efficient I have ever seen because it produces results, and presents them to us monthly.

These points are brought out so that you will realize that we are not held back by any "old foggy" ideas on the part of our executives, and to bring home to you the appalling fact that in an or-

ganization such as ours, striving to be up-to-date, it has only been within the past few years that we have fully realized what a terrible drain excessive labor turnover makes on the pocketbook of the employer.

COST OF LABOR TURNOVER

We have learned during the past two years from authorities in their line, as to the cost of labor turnover, and I believe the fact is firmly fixed in our minds that there is such a cost, but as the statement of such cost has been so general we are more or less skeptical as to the actual amount involved. I therefore propose to tell you about one of our departments, and will consider only the actual cost to us of bringing a man in off the streets, placing him in a position that is only semi-skilled, in fact, in such a position that with average intelligence a man becomes an effective worker in twelve weeks.

The department in question is run on a piece work basis and we have a plan whereby we pay each workman a day rate, in addition to a piece rate, until such time as he becomes efficient enough to earn a fair week's salary, which in this department is about six weeks, although to reach the full pay of an expert worker takes twelve weeks.

Our basis is as follows:

The first week we pay thirty cents per hour flat.

The second week we pay twenty cents per hour and in addition pay for all production he turns out on the basis of regular piece rates of such production.

The third week we pay fifteen cents per hour on the same basis.

The fourth week we pay twelve cents per hour on the same basis.

The fifth week we pay eight cents per hour on the same basis.

The sixth week we pay five cents per hour on the same basis.

At the end of that time the man should be self-supporting. We credit this man with all work turned out, and yet our records show that such a man costs us, in excess day work charges, the cash sum of \$42. This, however, is only part of the cost, as in this particular department the overhead expense is 130 per cent, or for every dollar we pay in actual productive labor we pay \$1.30 for unproductive expense, such as foremen's wages, instructors' wages, inspectors' wages, power, heat and light, repairs to machinery and fixtures (belts, shafting, benches, frames, etc.), oils, grease and

kindred items and expense materials that have no connection with the actual material in the tools, such as emery, grindstone, files, hand tools, etc.

This brings into the question the loss to any employer, that is not realized, because it does not appear in the pay envelope, but is hidden in the cost of doing business and is assumed to be a necessary evil in the expense of conducting such a business.

This is hard to express in terms of dollars and cents, but from our records I believe I have found a way to make it clear. In this department a skilled employe makes \$24 per week and (on the basis of unproductive factory expense of 130 per cent) it costs \$31.20 additional expense for his production. Our records show that a new man will have an average earning power of only \$10 per week over a period of the first six weeks. For each skilled man who turns out \$24 worth of productive work per week we have an overhead expense of \$31.20 in this department. Now for this \$31.20 we secure from a skilled worker a certain number of pieces of productive work represented by his earnings of \$24 per week. From a new man the average for six weeks is less than one-half the work turned out by a skilled worker, as shown by his average earnings of \$10 per week.

It is not fair to say that this man turning out only \$10 of productive labor will cost us as much in unproductive factory expense as the man who turns out \$24 of productive labor, but there are certain charges that must be assumed, that can properly be figured on the basis of a man charge, rather than a charge to a unit of production.

The only credit the new man would have would be in expense materials, that is, materials such as emery, grindstones and kindred items, where the greater the production the greater the consumption of such expense materials should be. This is based on the assumption that the learner will not use more of such expense materials in proportion than the experienced man, although it is a well-known fact that this is not correct. A learner always uses more expense material per unit of production than an experienced man.

In this department the factory expense materials are 50 per cent of the total factory expense charges, and in our figures we are going to disregard any excess charge for the extra amount of materials used by the inexperienced men. This, however, leaves

us with 50 per cent of the unproductive expense of \$31.20 which we pay for the \$24 production of the experienced man, or \$15.60, which we must charge to the \$10 production of the new man. This charge of \$15.60 covers only such expenses as foremen, instructors' and inspectors' wages, power, heat and light, repairs of all kinds, etc., or such expenses as must be assumed by the man unit no matter what his production is. In other words, it costs as much in such expenses for the \$10 production as it does for the \$24 production.

On the basis of an expense of \$15.60 for a \$10 production the percentage is 156 per cent instead of the 130 per cent we pay for the \$24 production, or a net excess cost to us of 26 per cent, or \$2.60 per week, or for six weeks an excess of \$15.60. During the following six weeks, which complete the twelve weeks we figure are necessary to produce an experienced man, this excess cost becomes less due to increased production, but if we cut it in half it is six weeks at \$1.30, or a total of \$7.80.

These three amounts total an excess cost to us of \$65.40 to break in a new man in this one department. These figures are based on the assumption that every man we hire stays with us long enough to become an experienced man, but our records show that we hire six men for this one job before we obtain one who stays with us long enough to become skilled. If we added to the \$65.40 the actual cost of breaking in and training the five men who do not stay, the final cost to us of replacing an experienced man with a green man, whom we have to train, would be so much higher as to be staggering. As a matter of fact our records of total excess cost in this department, not analyzed as I have done, but taken in bulk and divided by the number of men trained over a given period, show the final cost to us per experienced man to be over \$100.

In this analysis I have purposely left out of consideration all expenses, such as interviewing and hiring men, loss in defective work, and have charged nothing for money invested in equipment which we lose on account of low production. You may not have the same plan of payment, but by taking any plan you have and figuring in all collateral charges, such as we have ignored, you will find that the average of \$40 per man, mentioned by various authorities, is extremely low. This cost is brought out to show you how **great** the prize is if you can by any method reduce your labor turnover.

WHY WE STARTED AN EMPLOYMENT DEPARTMENT

The work of the Philadelphia Association for the Discussion of Employment Problems opened our eyes to the importance of a better system of hiring and firing men. Our system had been the lack of system used by the average employer. When we needed men, our foremen hired what men they could get through their friends, and the balance were picked up in the early morning from the floaters found at the door of every factory daily, and it is hard to conceive of a more undesirable source of supply. This method is so bad in its results that I do not intend to dwell upon it but will relate actual occurrences that crystallized our ideas as to starting an employment department. We heard one of our foremen interview an applicant one day when our need for men was urgent, and the way he handled him opened our eyes as to the possibilities for evil under such a system.

We had at that time, when labor was plentiful, a scheme of partial remuneration, different from that outlined above. When the foreman appeared on the scene, after the man had been waiting almost an hour, he approached him in a belligerent attitude, with—

“Do you want a job?”

The answer was “yes,” and an inquiry as to the kind of work. This was answered in a monosyllable, and then the applicant asked what the job paid. With no attempt to explain the method of remuneration the applicant was informed that we started men in and they could make fifteen cents an hour but would soon learn and get more money.

The applicant said, “I could not work for fifteen cents an hour.”

The foreman snarled, “Hell! You don’t want work,” and left the applicant standing in the hallway, with a blank look on his face.

At about the same period we advertised for men, and our office was filled daily in the early morning, and when the foremen had grabbed off as many as they needed in point of numbers, they paid no attention to the balance, but would instruct an office boy to tell the applicant that all jobs were filled.

One day we received a letter from a workman who had noticed the advertisement, and wrote relating his experience in answering a previous advertisement from our factory. He stated that he did not want to try it again. He pointed out the fact that he had spent an hour and a half in the early morning to get to the factory

at a cost of twenty cents, a loss of an hour in waiting at the factory, and the fact that he had eventually been dismissed by an office boy with no opportunity to see an executive.

He was exceedingly bitter and deservedly so. We wrote him a personal letter, apologized for such a condition, and promised him it would never occur again to any applicant and I don't believe it ever has. The injustice of such a method, coupled with the ruinous effect it must have on our reputation made such an impression that the whole subject was taken up with the board of directors and it was finally decided to create an employment department.

START OF EMPLOYMENT DEPARTMENT

When we had definitely decided to create this department, we knew that we had to make haste slowly, but that there were certain definite lines of policy that must be laid down at the beginning. The first step was the selection of the heads of the department. We finally decided that it must be in the hands of men with knowledge of our factory processes, men big enough to analyze conditions, and important enough in position to have at all times access to, and the hearty coöperation of, our executives, as we realized that employment problem studies would eventually lead to considerable changes in shop conditions. We finally placed entire charge in the hands of our assistant superintendent, Mr. William D. Plumb, together with our comptroller and cost accountant, Mr. James A. Mellon.

The reason we selected these men was because we figured that the job had two sides. We selected our assistant superintendent because he was constantly in personal touch with the men throughout the factory, was also, through his daily routine, familiar with shop conditions, and in the best of position to investigate complaints at first hand. We selected the head of the cost department as this department was to be linked up with the employment department and was to keep all records necessary to take care of the information needed for a successful solution of our employment problems. The cost department in our organization is cold blooded as to figures, and we wanted them to show what progress we were making in dollars and cents and at the same time act as a check on any proposed expenditure suggested by the employment department that did not promise to bring results in dollars and cents. The question of taking

from the foreman the authority to hire and fire workmen was carefully considered, but not definitely decided in advance, as it seemed such a serious problem.

We finally called a conference of our officers, the new employment managers, whom we had selected, and our two superintendents, to discuss fully all questions connected with the establishment of the department. There was very little discussion as to matters of general policy, until we approached the question of taking the hiring and firing out of the hands of the foremen. Both of our superintendents were opposed to doing this, and while they granted that we could possibly solve the hiring part, they saw great obstacles in the way of taking from the foremen the authority to fire men. The greatest objection was raised on their honest conviction, that taking this authority away, would weaken the foremen in the eyes of the men, and break down all discipline. We argued the matter for some time, raising hypothetical questions of what could happen in a department where it would be necessary for a foreman to exert his authority at once, or lose his hold on his workmen.

All cases were met with logical answers covering all points brought up as far as we could foresee them, and we all finally agreed that the advantages far outweighed the disadvantages, and the employment department was created with the full consent of all concerned. The work of the new department was outlined as follows:

Memorandum, March 30, 1916

1. The employment department is to examine and hire men. Requisitions for men from various departments are to be sent to the employment department by the foremen. From these requisitions the department is to get men to fill positions by advertising or from other sources of supply which it will be necessary for the department to create.

2. The employment manager is to watch the men after they are employed, keeping records of the work, and to see that the employe is brought up to the standard of the department, one thought being that we should adopt an efficiency schedule, and if a man cannot make good in the time set for him he will either be discharged, or, if he shows any adaptability for other work, placed in another department.

3. After some discussion the general thought of the conference was that employes could neither quit nor be discharged without the signature of the employment manager. This would enable the employment manager to find out causes for men leaving, and while he might not be able to retain the men it would

show him our weakness if any exists and enable him to eradicate it with future employes. The signature of the employment manager on the discharge slip of an employe would likewise make foremen more careful as to recommending the discharge of a man without a just cause.

4. The employment department would keep records of absences of employes, general efficiency and all items of this kind bearing on a man's value to the plant. This will be worked out by this department and is entirely in their hands.

5. It was definitely decided that requisitions for employes presented by foremen must be O. K.'d by the superintendent in order to keep him in touch with the general situation.

HOW WE STARTED

We had nothing but an application blank on which to start, and no place except the hallway of the main office to interview applicants, but nevertheless we put the plan into effect at once and notified the foremen of the new procedure. Considering the effect of such a change to the foremen it was accepted with a better spirit than we expected. From the foreman's standpoint he was giving up a great deal more than we perhaps realized. He had been accustomed to an autocratic control of his department and he was rendered homage by his acquaintances through being the man who could place them in positions when he so willed it. Adulation is incense to most men, and they were no exception. Suffice it to say at this point, however, that we have never had any real friction with the foremen on either point.

One of the first benefits we derived was in freeing the foremen from the daily necessity of looking over men they needed at the factory door. Under the old system, the first hour of each morning and the most critical hour from a departmental standpoint, was signalized by the absence of foremen from their departments. The new system automatically changed this, and foremen were free to supervise work in their own departments, rather than lose hours daily in interviewing applicants for work. This has worked out so well in actual practice that I question if we have in our organization today a foreman who would go back to the old method of hiring, and we unquestionably would not. In addition to lost time, which can be more profitably spent in their own work, foremen as a class have not a broad enough viewpoint to select men dispassionately, nor have they the opportunity to select them. Quite often you will find, on account of the foremen, cliques built up within a department

due to nationality, creed or secret societies. This is not always intentional, but is created because the foreman draws from his only source of supply, viz: his own friends and associates.

As to the firing end of the proposition there are many arguments against leaving this power with the foremen, but the following seems to my mind pertinent enough to point out the weakness of the practice: Factory managers check up their foremen on all material they use; watch them to see that the machinery is in good condition and save every penny they can by careful supervision, but when it comes to firing men, they give the foremen full sway, because the potential value of \$50 to \$100 invested in that man is not shown in hard cash and is therefore overlooked.

The employment department found right at the start that they were handicapped by lack of facilities for interviewing applicants, and it was definitely decided that we should build an employment office for the purpose of housing the new department. Their preliminary studies had convinced the managers that valuable space was taken up by lockers and departmental wash-room facilities, so the suggestion was made that we combine with the building for the employment department, a service building for the men, with sanitary lockers for each individual, good wash-room facilities and shower baths. This was done, and the building has been in service since July, 1916, and has undoubtedly had a great moral as well as physical effect on our workmen, in addition to the valuable and much needed space which it has released for greater productive capacity in several departments.

It was soon apparent that it was necessary to keep a system of records of each individual from the time he made his application until the time he left our employ for any reason, and time and study has brought into daily use the forms herewith, which I shall try to make clear to you.

FORMS IN USE

The following are a set of forms which we find necessary to use in our work.

I Requisition for help sent to employment department signed by foreman. On reverse side we have printed a new employe slip, which gives a record of the man sent to fill the requisition.

FORM I

REQUISITION FOR HELP

Always use this form when in need of help and whenever possible notify Employment Department one week ahead.

2.16. 1917

Employment Dept.:

Please employ for Dept. 18 one man age 21 to 40 with the following qualities
Some experience if possible or strong sober man

Kind of work wanted for *Polishing*

Wages to start *New rates*

Chances of advancement *Piece work*

Steady or temporary work *Steady*

When needed *at once*

Signature *John McMullin* Dept. 18

II Application blank. All the questions we ask seem to us pertinent, and the answers give us a line on the applicant's desirability.

FORM II

APPLICATION FOR POSITION

No. 1831

Date 2/24 1917

Name *John Sobritski*

Address *4623 Milnor St.*

Read Eng. *No*

Married ✓

Single

Age 33 yrs. Wt. 165 lbs. Height 5 ft. 10 ins.

Write *No*

Speak *A little*

Last Employed at *Henry Disston & Sons*

Address *Tacony*

How long *6 months*

Why Released *Change of residence.*

LAST 4 PLACES YOU WORKED

Place *Rowlands Spring Shop* How long *1 year* Why Quit *small pay*

Place *Barrett* How long *6 months* Why Quit *dissatisfied*

Place *Germantown Tool Co.* How long *2 months* Why Quit *too far*

Place *Fayette R. Plumb* How long *2 years* Why Quit *to go to Germantown*

Time ✓

Wages Earned *11.50 to 20.00* Piece ✓

Wages Expected *Piece work*

Kind of Work Done *Labor & Polishing*

Kind of Work Desired *Polishing*

Nationality *Polish*

Remarks *Good polisher on edge tools. Quit because we called him for smoking in grinding room.*

III Employes' record card. This gives an analysis of the man's record with us, and is used to make notes for future reference.

FORM III

EMPLOYEES RECORD CARD

Dept. 18

Date 2/24 1917

No. 1831 Name Sobritski, John Age 33

Address 4623 Milnor Street

Nationality Polish Languages Spoken, Eng. A little

Read Eng. No

Write Eng. No

Societies Two

Married ☒
Single

Children 3

Rate per Hr. New Rate

Change of Wages	Date									
	Rate									

Employment ceased 5/17/18

☒ Quit—Layed Off—Discharged

Cause To go to Detroit

Remarks May return. Gave week's notice. Good man—take him back if he comes.

Approved O. K.

Signed W. D. Plumb

Approved

Signed

IV Record card of work done and hours worked.

This card shows not only the kind of work done but the hours worked and the amount earned; in other words, it is a continuous payroll record for each particular man. This is valuable in our work as we are able to assort these cards by classes of work done, and quite often settle disputes as well as use them as a basis of records for the adjustment of wage rates.

In one case we stopped what seemed to be a serious walkout of twelve men, all working on the same kind of tools. They sent a delegation to the employment department with a request for more money, pointing out that the work was hard and that some men could make only \$14 to \$16 per week; that the men who made high wages were exceptionally able workers, and that their pay was not a fair basis for comparison with the average men.

By taking the cards of all the men on this particular work, our employment manager was able to show the delegation that the low wage men were not working full time but were the loafers of the department, and that on the basis of the hours worked they were earning as much per hour as the high wage men on this class of work.

The delegation was so convinced of the fairness of our position that the trouble died before it was born.

FORM IV

NAME *John Sobritski*

Week	Description of Work	Hours W.O.		Reason for being out	Pay	
<i>3/1</i>	<i>Polishing A. E. Nail 1½ B. S. Hand 2 Engineers</i>	<i>30</i>	<i>22½</i>	<i>Moving Bonus .37 Day Rate 7.50</i>	<i>7</i>	<i>50</i>
<i>3/8</i>	<i>Polishing A. E. Nail 1½ " " " 2</i>	<i>52½</i>		<i>Bonus 1.31 Day Rate 10.50 Piece 2.65</i>	<i>13</i>	<i>15</i>

V Pass issued to workmen to leave the factory and reasons given. No workman can go out without a pass.

FORM V

Dept. <i>18</i>	Date <i>5/12/17</i>	
Name <i>John Sobritski</i>	No. <i>1831</i>	Reason
<i>Pass out at 10.15 and excuse</i>		<i>Work caught up.</i>
Dept. Head <i>John McMullin</i>	Supt. <i>H. T. Jackson</i>	

FORM VI

VI Slip for a man who is discharged or quits. Must be signed by the employment manager.

No. 1831

Date 5/7 1917

Please pay to *John Sobritski*

Dept. 18

wages for week ending 5/17/18

Dept. Head *John McMullin*

Left ☒

Discharged

Cause *To go to Detroit to polish auto parts*

Empl. Agt. *William D. Plumb*

This slip must be signed by Employment Agt. if employe is leaving.

SPECIFICATIONS FOR HIRING WORKMEN

While we have not gone far enough to indulge in psychological tests in the selection of workmen, and do not differentiate between blondes and brunettes, we have found it necessary to have certain standards for the use of our employment department, and from our experience we have drafted a partial set of rules and specifications to assist in selecting the right men for each particular job.

These rules are as follows:

HIRING MEN

Be courteous; be patient; remember you have much to do with "labor's" opinion of the factory.

If we have the kind of work the applicant wants, give it to him, provided he is strong enough, does not seem to be a floater and has no infirmity.

If we haven't the kind of work he wants, try to interest him in something that is similar to it.

WHEN HIRING MEN, DO AS FOLLOWS

I Ask them what kind of work they have been doing. If they haven't been doing any work similar to ours, ask them the kind of work they want. If they say *labor*, they are possible for following jobs, provided they come up to the requirements necessary for the several jobs: yard, trucking, grinding, tempering, polishing and heating.

If they ask for something in our line they are ready for application blanks.

II If applicant wants work in which we have no opening, or doesn't want work we have, do not bother with application blank unless he seems especially good.

III Make out, or, if they are able to do it, have applicants make out application blank.

IV If applicant wants work in our line, find out experience or reasons for wanting job.

V If applicant comes up to requirements, explain to him carefully: the job, the pay, the bonus system, the card system, the hours and the fact that he must give a week's notice before leaving to get pay in full, and that we hold back a week's pay. Finally tell him that the employment department is always ready to straighten out any misunderstanding he may have.

FOR GRINDERS THE BEST TO DRAW FROM ARE

Nationality. Polish, Lithuanians or Americans, experienced grinders, or Americans that want to try it after being told that the job is hard work, wet work and that the majority of the men are Polish, but the job pays good money. Ask them if they are ever troubled with their backs or rheumatism.

Physique. Generally strong and big boned. Some small wiry ones make good, but not many of them. Explain: must wear glasses, boots and aprons, which we furnish, for wet grinding, and for which they pay at the rate of \$1 per week.

Forgers in Department 14. Boys for back of press; must be at least eighteen years old, big boned, either American or American Pole. Remember that we want one that can work up to drop hammer.

Heaters. Men over twenty-one years. Used to working in heat. A man that has worked in a rolling mill or any forging shop. Either American or Polish.

Drop or Pressmen. Transfer good heater. No heaters available, get old forgers on foreman's list. No one available, take men over twenty-five with intelligence and strong physique.

Handlers. Americans over twenty-one. Men accustomed to using a hammer preferred, such as carpenter's helper or chipper.

Finishers. Girls sixteen or over. Americans or Italian, former preferred. Some experience in factory work. Neat about clothing, without cheap finery. Better if they are not "flirty" and live at home.

Packers. Americans, experienced packers preferred. In any case must be able to read and write well, must be reasonably neat, enough to show carefulness.

Handle Belters. Americans or Italian. Eighteen to twenty-five. Strong wrists and quick movers.

There are similar instructions in regard to other classes of employes, but these will be sufficient to show the extent to which we have gone thus far.

WHAT WE HAVE ACCOMPLISHED

When I asked our employment department what they had accomplished the answer was "Not much. We have hardly scratched the surface as yet."

Realizing that they had been in actual working order in their new building only since July, 1916, or a period of eight months, a search of their records hardly bears out such an answer, but when the problems to be solved are so many they evidently feel that what they have done is but a drop in the bucket. I propose to point out some of the things they have accomplished and leave it to your judgment if they are not at least on the way.

1. A BONUS SYSTEM

The employment department found that one of the greatest evils from which we suffered was continued lateness, continued absence, and workmen quitting at the drop of the hat. To discourage these practices, and reward good workmen, they proposed and we adopted a bonus system as follows:

A. A workman receives an additional 5 per cent of his weekly pay providing he turns in a perfect weekly time card as to attendance. Excused only if sent home by foreman, or loses time due to injury incurred at factory.

B. Receives another 5 per cent for maintaining the standard of a good workman. It is assumed that all employes have maintained this standard, unless they are reported to the contrary by their foremen or the superintendents. This is deducted in extreme cases only.

C. While workman is credited with the bonus from the day he starts, he must work three months before he obtains it. If he quits or is discharged before this time he receives no bonus.

D. The bonus is paid by check, and a workman may leave his bonus on deposit with the firm, and receive 6 per cent annually, payable semi-annually.

We now have about forty-one bonus books on deposit. We have greatly improved the conditions, and feel that it has been a wise expenditure, but experience has proved that it needed stiffening and we have added a ruling that seems to be having the desired effect. The ruling is as follows, viz:

"If an employe loses time three weeks in succession except for reasons covered by provided excuses, he forfeits his rights to his entire bonus, until he shows a perfect time card for one week. He is notified that if he continues this delinquency, he is not considered desirable."

By showing delinquents how much they are losing in cold cash, by being late and losing time, they are made to realize that it does not pay.

2. REDUCTION FROM FIFTY-SEVEN AND ONE-HALF TO FIFTY-TWO AND ONE-HALF HOURS

During the period when men were so hard to get we tried to analyze the causes for men either not hiring with us or not staying with us and the employment department made the following report as to one of the contributing causes:

Our work from its very nature is hard and laborious, tiring men out compared with work in the average factory. We figure that in order to hold our men, and make our plant attractive to new men, it is necessary to reduce our week from fifty-seven and one-half hours to fifty-two and one-half hours, with no reduction in pay. We figure that it will not decrease our production, but will raise it.

After some discussion their report was adopted and on December 4, 1916, all day rates were raised so that the pay equalled or slightly bettered on a fifty-two and one-half hour basis the old pay on a fifty-seven and one-half hour basis. All piece rates were carefully analyzed and adjusted in every case where the shorter hours affected the pay of the producers. The results speak for themselves. The men felt better and appreciated our action. It is much easier to hire men than before. The weekly production, in one of our worst departments in spite of the shorter hours, has increased 18.4 per cent and in the entire plant 10 per cent.

3. REFORM WITHIN A DEPARTMENT

One of our departments demanded personal investigation, as we found it impossible to keep men or to maintain production. An analysis by the employment department showed poor shop conditions in many phases.

A. Inadequate artificial lighting at dusk, so bad that no one but the individual workman bent over his work could tell what he was doing. This part of room dark and cheerless.

B. Bad drainage in the rear of the machines, which were fed with water. The water collected in spots. This section of the department had a dank unwholesome smell.

C. The foreman was inefficient, had no control over his men, and therefore none over his department. He wasted most of his

time doing clerical work that he dragged out over almost the entire day. The men who worked under him were as a class heavy drinkers and independent, worked when they wanted to and quit when they wanted to.

The following remedies were suggested and adopted:

A. Improved lighting. One hundred watt mazda lamps were installed every twenty feet.

B. Drain was put in which took care of all excess water, relieving both the discomfort and odor.

C. The foreman was discharged, and a capable man from another department put in his place.

This move stiffened up discipline, and improved the personnel of the department.

D. The entire layout was inspected, safety guards put on all machines where there was any chance of a workman getting injured. Everything possible was done to make the operation of the machines safe and convenient for the men.

E. Two instructors were installed to teach new men.

F. All piece rates were carefully analyzed and prices adjusted so that there were no "good jobs" and "bad jobs." They were all made "fair and square jobs."

Rates were equalized and set so that men could make an average sum per hour on any kind of work done in the department. Since then there have been several adjustments and still a few to make, but we keep in close touch with the work, and "raise before we are compelled to." This is the department that increased production 18.4 per cent with five hours per week less running time, and last month had the largest production in the past three years. This attention to details has already proven it has paid, through the reduction in overhead per unit of production in this department.

4. INTERVIEWS WITH MEN WHO QUIT

As all men are paid off through the employment department, even the men who quit without notice must return to the department to be paid wages due. All others must secure the signature of the employment manager if they give notice or are discharged, so we have a chance to interview all dissatisfied men and some of the results are illuminating.

When men quit or are discharged they have no reason for withholding information. Complaints are heard of nagging foreman, lost time in waiting for work, and other complaints bearing on shop efficiency. Those are investigated, and if the fault is with us it is remedied.

These complaints brought to light the weakness of one of our best foremen. He always had a "chip on his shoulder," approached his men with that attitude and caused a great deal of friction before this fault was discovered. A talk by our superintendent convinced him that while that sort of attitude may have been all right ten years ago, "it can't be done" now. Another man quit, and on being asked for reasons, stated that he had to lose too much time waiting for one indispensable tool, and for material for his work. Likewise was advised that his work was O. K. by one inspector, only to finish it up and have half a day's work thrown back by another inspector. An investigation proved that the man was justified; the case was settled, and the man is still with us. As he was an experienced hand in the department in which I stated it cost us \$100 to "break in" a new man, it looks as though this was a fair day's work.

5. TRANSFERS IN THE FACTORY

This was something never attempted. If a man did not suit his foreman, he was fired and no questions asked. Now we look into unsatisfactory cases, try to find the cause, remedy it if we can, and if we can't, try to locate the unsatisfactory man in another department. We have one young man, of undoubted ability, good personality, pleasant and obliging. He became a regular Monday absentee, took all that was told to him as a reprimand with a lackadaisical air, and had evidently lost his "pep." We found upon investigation that he was fast becoming disgusted with his outlook, and felt that he was up against a blank wall. We transferred him to a semi-executive position in another department, gave him larger responsibilities, and a larger salary, and he has more than made good. Another man was a boss trucker, who made a flat failure of the job. He was then made head inspector of one of our hardest departments, and has done wonders in bringing up the general efficiency of the department. He was temperamentally unfitted for one job, and fitted for the other.

6. ACTUAL ACCOMPLISHMENTS

I will not inflict upon you any details of labor turnover, but will simply point out the reduction in the number of men who quit since the department has been in operation. Taking April, 1916, as a basis, during the month of July, one of our worst months on account of heat, the number of men who quit was reduced 25 per cent. This work has been steadily improving and in January, 1917, the reduction on the same basis was 48 per cent. Since the installation of the employment department, we have decreased our working force 10 per cent, reduced our working time almost 9 per cent, and increased our total shop production 10 per cent.

7. INDIRECT BENEFITS

When we first started the employment department our men looked on it with suspicion, as being another one of the things the boss was trying to put over on them, under the guise of service. This attitude of mind is common, and is no more than is to be expected, because of the past relations of employe and employer. Vanderbilt's phrase, "the public be damned," has been paraphrased over and over again with the "men be damned" and the "boss be damned." Recollect that this feeling has been handed down from father to son, and is bred in the bone. It is the survival of the days when "to the victor belongs the spoils," and "might is right."

We are now on the threshold of better things. Employes know and workmen are learning that their interests are identical. One cannot be prosperous without the other. This, however, is the new viewpoint, and has only made headway within the past ten years, and we cannot expect to wipe out generations of suspicion and misunderstanding over night. Our employment department has adopted as its motto, "put yourself in his place," patiently listens to complaints, and does not make the common error of believing that lack of education actually means lack of knowledge. Workmen do not put their kicks in the purest English, although sometimes they adorn them with the strongest. Our men have learned that the employment department is built for them, that it is a place where they get a square deal, and that they will be treated right on all occasions.

To show you how far we have gone I will cite the way disputes were handled before and have been since the creation of this depart-

ment. Formerly men would stop work in a bunch demanding something, and refuse to return to work until it was granted. In one case they gave us one hour to consider a question involving fifty men in one department, and before we had time to even digest the demand the hour was up and they walked out. Since April, 1916, we have had no strikes and no threats. We have had two requests, and the men have stayed at work until a decision was reached. If our employment department had done nothing but produce this feeling of personal responsibility to each other on the part of the men and on the part of the firm, it would have justified its existence and its cost.

In conclusion I feel that in the study of employment problems we are trying to solve issues ages old, and while the reward is great from the standpoint of efficient factory management the reward is still greater if we can but help to solve the principle of humanity involved, and so insure that coöperation without which we can make no progress, and with which the watchword will be "prosperity for all" and not "prosperity for one."